

REMARKS

This application is believed to be in condition for allowance at the time of the next Official Action.

The Official Action rejects claims 1-8 under 35 USC 103(a) as being unpatentable over KADAKIA et al. U.S. 2004/0122149 (KADAKIA). This rejection is respectfully traversed.

KADAKIA is offered for teaching the claimed sebacic ester plasticizer and trimellitic ester plasticizer used in PVC resin compositions, as well as the incorporation of a perchlorate stabilizer. The Official Action recognizes that KADAKIA fails to provide any particular example that would suggest the claimed mass ratio.

However, KADAKIA is concerned with eliminating or reducing the amount of such compounds from a PVC resin. KADAKIA fails to disclose or suggest their combination or the mass ratio of component (A) to component (B) as claimed.

The claimed invention is not just a simple combination of (A) trimellitic ester plasticizer and (B) sebacic ester plasticizer. The criticality of the claimed invention lies in that the combination of the plasticizers (A) and (B) is used at a particular ratio, i.e. mass ratio of (A)/(B)=99/1 to 60/40.

As described in the present specification (see [0032]) and KADAKIA (see [0015]), a great variety of plasticizers are known for PVC. Indeed, without their attention being drawn to KADAKIA, the applicants have well been aware that it is already

known to a skilled person in the art that the above plasticizers (A) and (B), which are used in the present invention, can be used as plasticizers for PVC.

However, it is by no means easy to select a combination of plasticizers (A) and (B) from among the wide variety of plasticizers. Needless to say, it is far more difficult to further determine a specific ratio at which the combination of (A) and (B) is to be used.

This is apparent from the unexpected advantageous effects that are attained by using the claimed combination of (A) and (B) at the specific mass ratio.

That is, for example, Table 1 of the present specification demonstrates the unexpected advantageous effects of the claimed invention. The compositions containing a combination of (A) and (B) at the claimed mass ratio are used in Examples 1-1 to 1-6. The resulting resins exhibit excellent cold resistance and fog resistance, as demonstrated by the brittleness temperature and haze value, respectively. These resins also exhibit gelling properties, heat stability and thermal aging resistance.

However, the compositions according to the claimed invention stand in contrast to the compositions used in Comparative Example 1-5. Comparative Example 1-5, which indeed contains (A) and (B), contains them at a mass ratio outside the claimed range. The resulting resin for this comparative example shows very poor fog resistance. It should also be noted that the

fog resistance of this composition of the Comparative Example 1-5 is even inferior to that of the composition used in the Comparative Example 1-2, which uses other combinations of plasticizers than the combination of (A) and (B).

Thus, as KADAKIA fails to recognize the unexpected advantageous effects of the claimed composition of component (A) to component (B) in a mass ratio of 99/1 to 60/40, KADAKIA does not render obvious independent claim 1 and dependent claims 2-8.

Therefore, withdrawal of the obviousness rejection is respectfully requested.

In view of the foregoing remarks, applicants believe that the present application is in condition for allowance at the time of the next Official Action. Allowance and passage to issue on that basis is respectfully requested.

The Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 25-0120 for any additional fees required under 37 C.F.R. § 1.16 or under 37 C.F.R. § 1.17.

Respectfully submitted,

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